

Message Text

UNCLASSIFIED

PAGE 01 STATE 027876

ORIGIN ACDA-10

INFO OCT-01 PM-04 ERDA-07 ISO-00 IO-13 SS-15 FEA-01

CIAE-00 INR-07 L-03 NSAE-00 NSC-05 EB-08 NRC-07

OES-06 DODE-00 SSO-00 NSCE-00 INRE-00 /087 R

DRAFTED BY ACDA/NTB:MMOSS

APPROVED BY ACDA/NTB:CVANDOREN

PM/NPO:JOPLINGER

ERDA/AIA:HCURTIS

-----090102Z 103128 /64/12

O 080501Z FEB 77

FM SECSTATE WASHDC

TO USMISSION IAEA VIENNA IMMEDIATE

UNCLAS STATE 027876

C O R R E C T E D C O P Y (PARA 2, LINE 9)

E.O. 11652:

TAGS: PARM, TECH

SUBJECT: IAEA RFCC STUDY

REF: A) STATE 20473 B) MOSS/LABOWITZ TELCON FEB. 6

C) MOSS/CURTIS/LABOWITZ TELCON

1. AS EXPLAINED IN REF. A, DEPARTMENT HAD SERIOUS TROUBLE WITH THOSE PORTIONS OF DRAFT RFCC STUDY DEALING WITH ECONOMIC COMPARISONS BETWEEN PLUTONIUM RECYCLE AND PERMANENT STORAGE OF SPENT FUEL, NOTABLY LATTER PORTIONS OF SECTION 6, THE SECTION "RESULTS AND CONCLUSIONS" (VOLUME I) AND SECTION 18, VOLUME II. DEPARTMENT APPRECIATES MISSION'S TIMELY POUCHING OF THE REVISED DRAFT OF THOSE PORTIONS OF VOLUME I ABOVE. THE PRESENTATIONS IN THE REVISED SECTIONS ARE VERY MUCH UNCLASSIFIED

UNCLASSIFIED

PAGE 02 STATE 027876

IMPROVED; HOWEVER, THERE ARE REMAINING PROBLEM AREAS.

2. FURTHER, DEPARTMENT UNDERSTANDS (REF. B) THAT AGENCY SENIOR REVIEW COMMITTEE FOR FEB. 4 MEETING OF RFCC DRAFT REPORT (POLLIART, FISCHER, ROMETSCH, MILLAN) DID NOT RECOMMEND EXCLUSION OF THE PARTICULARLY TROUBLE-SOME AREAS OF SECTION 6 (VOLUME I). IF FURTHER MEETING OF REVIEW COMMITTEE HAS NOT ADEQUATELY ADDRESSED USG

OBJECTIONS IN THE IDENTIFIED SECTIONS OF PARA 1 ABOVE, MISSION IS INSTRUCTED AT A MINIMUM TO BRING FOLLOWING POINTS UP WITH HALL DURING SCHEDULED FEB. 8 MEETING.

3. DURING THE AGENCY SPONSORED RFCC DRAFT REVIEW, US REVIEW TEAM REPEATEDLY MADE POINT THAT ECONOMIC CONCLUSIONS BASED ON A 12 1/2 FIXED CHARGED RATE (FCR) WERE MISLEADING, PARTICULARLY WHEN THIS FIGURE IS USED AS BASIS FOR CLAIMED ECONOMIC BENEFITS TO BE GAINED FROM REPROCESSING PER SE (BILLIONS OF DOLLARS). AS MISSION IS AWARE, MOSS AND CURTIS (REF C) DISCUSSED THIS POINT FURTHER WITH LEONARD BENNETT (IAEA) WHO AGREED THAT THE RESULTS WERE MISLEADING. BENNETT SUGGESTED QUOTING RESULTS BASED ON FCRS OF BOTH 12-1/2 AND 25 , INDICATING THAT THE LOWER FIGURE ESSENTIALLY ENTAILS SOME TYPE OF FINANCIAL SUBSIDY. PROGRESS WAS MADE IN THE NEW DRAFT OF SECTION 6 (VOL. I). THIS SECTION QUOTES COMPARATIVE ECONOMIC RESULTS FOR FCR'S OF BOTH 12 1/2 AND 25 (TABLE 6.2). HOWEVER, IN THE SECTION "RESULTS AND CONCLUSIONS" (VOL. I) TABLE 3 (WHICH IS MEANT TO BE THE SAME AS TABLE 6.2) ECONOMIC RESULTS ARE QUOTED AT 12 1/2 ONLY (YIELDING A LARGE REPROCESSING/RECYCLE ECONOMIC BENEFIT). THE LARGE NEGATIVE BENEFITS FOR THE VARIOUS REPROCESSING/RECYCLE SCENARIOS AT A 25 FCR HAVE BEEN MARKED OUT OF TABLE 3. THE 25 VALUE IS MORE CREDIBLE AND IT SHOULD BE QUOTED. FURTHER, IT SHOULD BE STRESSED THAT DUE TO NUMEROUS ASSUMPTIONS BEARING ON ABSOLUTE COSTS, THE LEGITIMACY OF ALL CALCULATIONS IS ON A RELATIVE ECONOMIC BASIS

UNCLASSIFIED

UNCLASSIFIED

PAGE 03 STATE 027876

ONLY (LARGE VERSUS SEVERAL SMALLER FACILITIES). FYI: A FIXED CHARGE RATE OF 12.5 WOULD MOST LIKELY NECESSITATE GOVERNMENT OR GOVERNMENT-BACKED FINANCING, WITH ABSENCE OF SUCH CHARGES AS INCOME OR PROPERTY

TAXES, INSURANCE, ETC. FIXED CHARGE RATES OF 28.5 WERE USED IN THE MOST RECENT US GESMO REPORT AND A 25 FCR FOR SIMILAR FACILITIES IN THE RECENTLY PUBLISHED ERDA-76/121 ("BENEFIT ANALYSIS OF REPROCESSING AND RECYCLING LIGHT WATER REACTOR FUEL.") IF INTEREST COSTS DURING CONSTRUCTION ARE INCLUDED, SIGNIFICANTLY HIGHER FCRS COULD BE EXPECTED. AS CAN BE OBSERVED FROM FIGURE 6.4 (SECTION 6) OF THE RFCC DRAFT SUMMARY, REPROCESSING/RECYCLE IN LARGE FACILITIES AT \$40/LB U308 IS ONLY MARGINALLY PROFITABLE AT A 15 FCR, WITH LARGE NEGATIVE "BENEFITS" FOR THE SMALLER FACILITIES.

END FYI

4. IN THE PRESENTATIONS OF TABLE 6.2 AND TABLE 3

(PARA 3 ABOVE), SPENT FUEL STORAGE COSTS (DIRECTLY

COMPARING PLUTONIUM RECYCLE TO SPENT FUEL STORAGE)
HAVE BEEN REMOVED. HOWEVER, COMMENTS HAVE BEEN PENCILED
IN MARGINS TO ADD STORAGE COSTS BACK TO BOTH THOSE TABLES.
AS EMPHASIZED IN REF. 1, THIS COMPARISON SHOULD NOT
BE MADE. IN TELCON OF REF C, BENNETT SUGGESTED
REMOVAL OF STORAGE FIGURES FROM THESE TABLES.

5. FIGURES 6.2 AND 6.3 (SECTION 6, VOL. 1) PRESENT
COMPARATIVE INVESTMENT AND RETURN SCHEDULES FOR ALTER-
NATIVE REPROCESSING/RECYCLE OPTIONS. THESE FIGURES
SHOW, FOR EXAMPLE, THAT REPROCESSING/RECYCLE IS
PROFITABLE (COUNTRY NO. 5) USING ONLY 300 TON/YR
PLANTS (STRATEGY B, FIGURE 6.3). ANALYSIS REVEALS,
HOWEVER, THAT ZERO REPEAT ZERO FCRS WERE USED FOR
ALL CALCULATIONS DEPICTED BY FIGURES 6.3 AND 6.4
UNCLASSIFIED

UNCLASSIFIED

PAGE 04 STATE 027876

(TEXT STATES "ZERO INTEREST"). MORE IMPORTANTLY, THOSE
FIGURES CAN LEAD TO SERIOUS MISINTERPRETATION ABOUT
THE ECONOMICS OF REPROCESSING/RECYCLE. IF THE FIGURES
ARE USED, ALL ASSUMPTIONS SHOULD BE HIGHLIGHTED
(AS THEY ARE NOT) AND THE QUALIFICATION MADE THAT
INDICATED RESULTS ARE NOT ABSOLUTE AND, AT BEST,
ARE ONLY VALID ON A RELATIVE BASIS.

6. DEPARTMENT RECOGNIZES AS USEFUL COMMENTS SUCH AS
(SECTION 6.5, FIRST PARA.): "... THE LONG TERM
STORAGE RESULTS WHICH ARE PRESENTED MUST BE VIEWED
AS SPECULATIVE GIVING ONLY AN INDICATION OF THE
RELATIVE MERITS OF STORAGE VERSUS REPROCESSING UNDER
THE ASSUMED CONDITIONS." IN VIEW OF THE SUCH COMMENTS,
WE HAVE DIFFICULTIES, FOR EXAMPLE, WITH THE STATEMENT
(LAST PARA., SECTION 6.5) "THESE RESULTS INDICATE
A GENERALLY FAVORABLE PICTURE FOR THE ECONOMIC VIABILITY
OF THE RFCC REPROCESSING OPTION IN COMPARISON WITH
LONG-TERM STORAGE." DEPARTMENT SUGGEST THAT ENTIRE
LAST PARA. OF SECTION 6.5 (WHICH INCLUDES STATE-
MENT IMMEDIATELY ABOVE) BE ELIMINATED.

7. RE: RESULTS AND CONCLUSIONS, PAGE 7, ITEM (C).
IN ADDITION TO STATEMENTS UNDER (C), IT SHOULD ALSO
BE EXPLICITLY NOTED THAT RECOVERY PERIODS SUCH AS
THOSE ILLUSTRATED IN FIGURES 6.2 AND 6.3 WOULD BE

CONSIDERABLY LONGER (AND ALSO CONSIDERABLY LESS
PROFITABLE) IF REALISTIC FCRS (OTHER THAN ZERO) WERE
UTILIZED. THE LAST PARAGRAPH OF "RESULTS AND
CONCLUSIONS" IS AT BEST MISLEADING. REFERENCE TO

FIG. 6.6 SHOWS, FOR EXAMPLE, THAT AT A FCR OF 25 REPROCESSING/RECYCLE CAN BE MORE COSTLY THAN STORAGE IN EVEN THE EXTREME STORAGE OPTION COST. FURTHER, AT A FCR OF 16-17 SPENT FUEL STORAGE COULD BE MORE ECONOMICAL THAN REPROCESSING/RECYCLE. MORE UNCLASSIFIED

UNCLASSIFIED

PAGE 05 STATE 027876

GENERALLY, AT REALISTIC FCRS OF 25 , THE SPENT FUEL STORAGE ECONOMIC UNCERTAINTY BAND LIES COMPLETELY WITHIN THE UNCERTAINTY BAND OF REPROCESSING/RECYCLE (SEE FIGURE 6.7). THE APT CONCLUSION HERE WOULD FOCUS ON THIS RESULT, AND EMPHASIZE THAT THIS PHENOMENON ONLY OCCURS WITH LARGE (I.E., RFCC) TYPE FACILITIES. SMALLER NATIONAL REPROCESSING/RECYCLE FACILITIES WOULD HAVE SIGNIFICANTLY LESS FAVORABLE ECONOMIC PROJECTIONS.

8. MISSION SHOULD BE AWARE THAT SECTION 6 (VOL. I) IS A SUMMARY OF A MORE DETAILED SECTION OF VOLUME II (SECTION 18) AND THAT, IN PART, THE SECTION "RESULTS AND CONCLUSIONS" FURTHER SUMMARIZES SECTION G. THUS, CHANGES IN THRUST, PRESENTATION, OR INTEREST IN ONE SECTION NECESSARILY FEEDS BACK INTO OTHER SECTIONS. WHILE OUR PRIMARY INTEREST IS TO INSURE THAT VOLUME I REPRESENTS WHAT WE CONSIDER TO BE AN OBJECTIVE ANALYSIS OF THE RFCC OPTION, VOLUME II SHOULD ALSO REPRESENT THE CHANGES WHICH HAVE ALREADY BEEN MADE AS WELL AS THOSE WHICH HOPEFULLY WILL OCCUR.

9. AS STATED IN REF 1, AGENCY SHOULD BE AWARE OF USG CONCERN AND THAT WE WILL BE COMPELLED TO

DISAGREE PUBLICALLY WITH PORTIONS OF REPORT IF THESE QUESTIONS ARE NOT SATISFACTORILY RESOLVED BEFORE PUBLICATION.
VANCE

UNCLASSIFIED

NNN

Message Attributes

Automatic Decaptioning: X
Capture Date: 01-Jan-1994 12:00:00 am
Channel Indicators: n/a
Current Classification: UNCLASSIFIED
Concepts: NUCLEAR FUELS, RADIOACTIVE WASTES, STUDIES
Control Number: n/a
Copy: SINGLE
Sent Date: 08-Feb-1977 12:00:00 am
Decaption Date: 01-Jan-1960 12:00:00 am
Decaption Note:
Disposition Action: n/a
Disposition Approved on Date:
Disposition Case Number: n/a
Disposition Comment:
Disposition Date: 01-Jan-1960 12:00:00 am
Disposition Event:
Disposition History: n/a
Disposition Reason:
Disposition Remarks:
Document Number: 1977STATE027876
Document Source: CORE
Document Unique ID: 00
Drafter: MMOSS
Enclosure: n/a
Executive Order: N/A
Errors: N/A
Expiration:
Film Number: D770044-0160
Format: TEL
From: STATE
Handling Restrictions: n/a
Image Path:
ISecure: 1
Legacy Key: link1977/newtext/t19770262/aaaaccnz.tel
Line Count: 210
Litigation Code IDs:
Litigation Codes:
Litigation History:
Locator: TEXT ON-LINE, ON MICROFILM
Message ID: 0fb6acc9-c288-dd11-92da-001cc4696bcc
Office: ORIGIN ACDA
Original Classification: UNCLASSIFIED
Original Handling Restrictions: n/a
Original Previous Classification: n/a
Original Previous Handling Restrictions: n/a
Page Count: 4
Previous Channel Indicators: n/a
Previous Classification: n/a
Previous Handling Restrictions: n/a
Reference: 77 STATE 20473
Retention: 0
Review Action: RELEASED, APPROVED
Review Content Flags:
Review Date: 20-Oct-2004 12:00:00 am
Review Event:
Review Exemptions: n/a
Review Media Identifier:
Review Release Date: n/a
Review Release Event: n/a
Review Transfer Date:
Review Withdrawn Fields: n/a
SAS ID: 3378294
Secure: OPEN
Status: NATIVE
Subject: IAEA RFCC STUDY
TAGS: PARM, TECH
To: IAEA VIENNA
Type: TE
vdkgvwkey: odbc://SAS/SAS.dbo.SAS_Docs/0fb6acc9-c288-dd11-92da-001cc4696bcc
Review Markings:
Margaret P. Grafeld
Declassified/Released
US Department of State
EO Systematic Review
22 May 2009
Markings: Margaret P. Grafeld Declassified/Released US Department of State EO Systematic Review 22 May 2009